

# **Energy Efficiency Finance in California:**A Regulatory Perspective

Innovations in Energy Efficiency Finance
Conference II



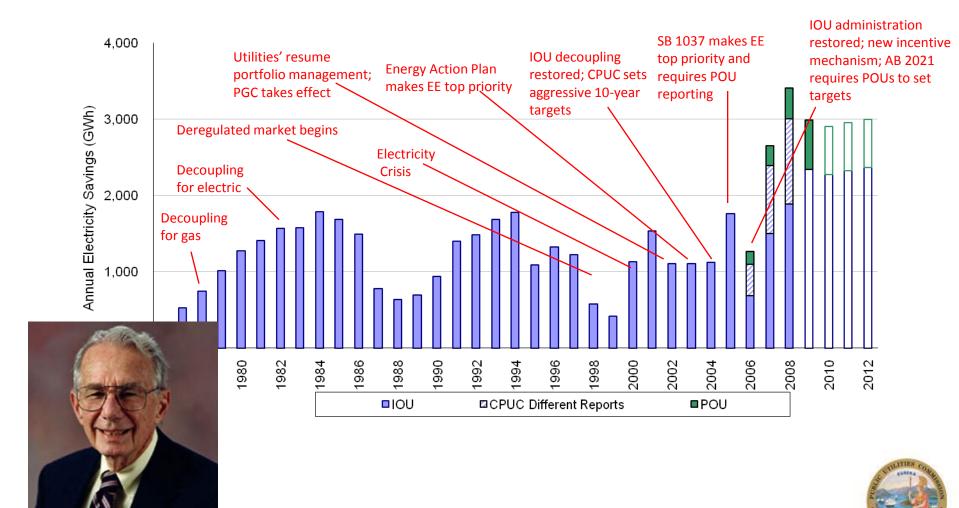
Mark Ferron

California Public Utilities Commission

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## California's History of Energy Efficiency Action

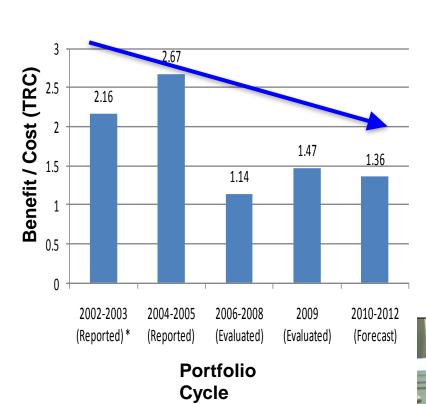




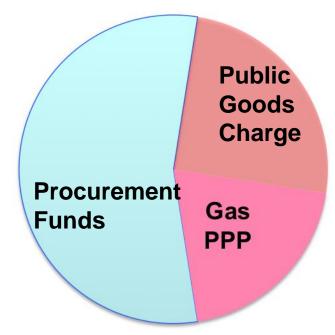


## Challenges to California's EE Programs

# Declining IOU Portfolio Cost Effectiveness over time



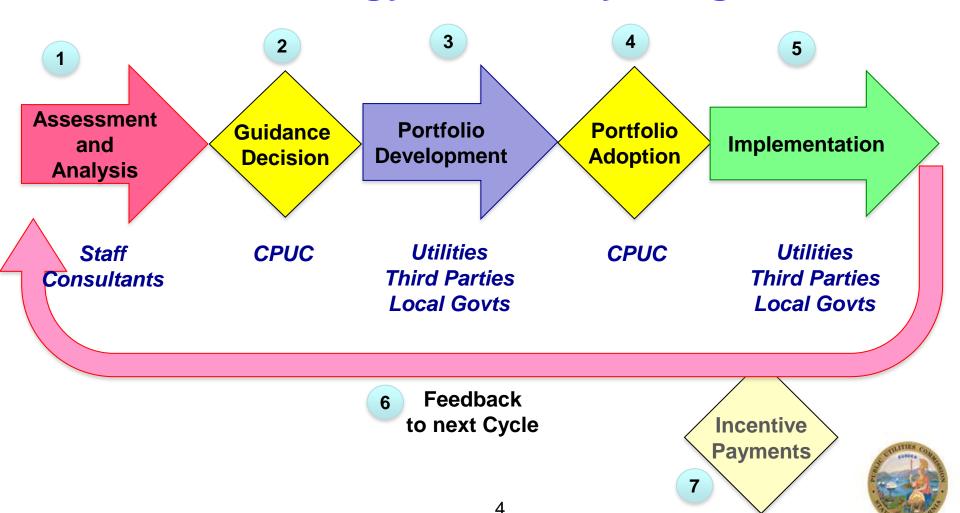
#### 2010-2012 Funding Sources At Risk







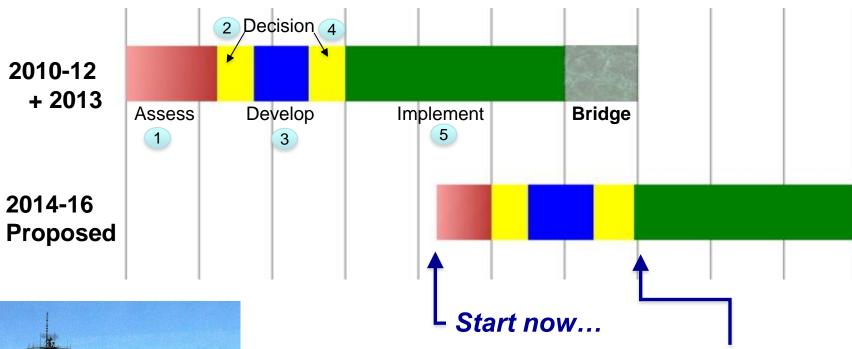
# Approval and Implementation Process for CPUC Energy Efficiency Programs





## How much can we do and how fast?





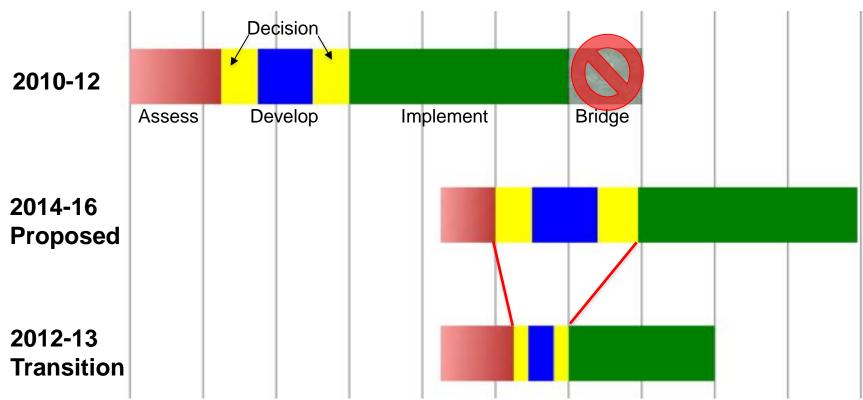






### How much can we do and how fast?

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016



Cut the program cycle in half and make meaningful change in 2013 ("Transition")





## 2013-2014 Transition Programs: Themes

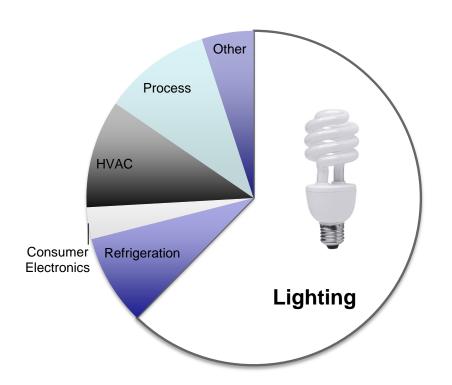
- Expand deep retrofit strategies for existing building stock
- Leverage ratepayer energy efficiency funds with private financing
- Increase the delivery of efficiency programs by third parties and local governments
- Promote an integrated approach to Codes and Standards
- Encourage innovation





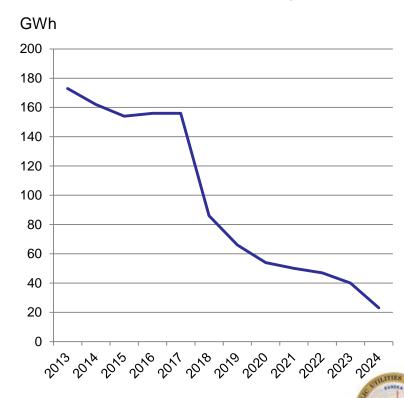
# **Declining Savings from Lighting...**

# 2010-2012 Electricity Savings by CA Investor Owned Utilities



Source: CPUC, Energy Efficiency Groupware Application (October 2012)

# Statewide Market Potential for Residential CFLs



Source: Navigant Consulting, "CPUC Potentials, Goals and Targets Study" (March 2012)

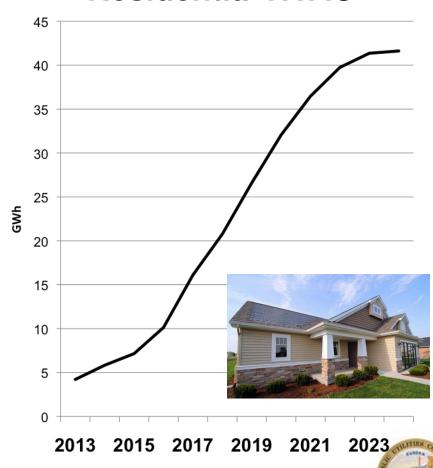


## ... but Growing Potential Savings in Buildings

#### **Commercial HVAC**

#### GWh 2017 2019

#### **Residential HVAC**



Source: Navigant Consulting, "CPUC Potentials, Goals and Targets Study" (March 2012)



# **Commercial Retrofit Programs**

- Emphasize a "whole building approach" to commercial retrofits
- Commercial Energy Advisor Program (Audits) including DG, DR opportunities
- Sub-metering and plug load control technology
- Collect and use performance data
- Include programs for municipal, university, schools and hospitals







# Residential Retrofit Programs

- Promote statewide brand: "Energy Upgrade California"
- Reduce the number and complexity Reduce energy use. Save money. Create jobs. of program while increasing savings targets
  - Middle Income Direct Install
  - Multi-Family Energy Efficiency Rebates
  - Residential HVAC Programs
  - Behavioral Programs
  - Basic CFL and Advanced Lighting "upstream" cost buydowns
  - Added focus on hotter climate zones









# Regional Energy Networks

- Local Government Administered programs
  - Activities which utilities cannot do, scalability for broader geographic reach, hard to reach markets.
- Act as a laboratory for new ideas and carry on ARRA programs
- Program offerings
  - Energy Upgrade CA
  - Financing
  - Regional Energy Centers
  - Codes & Standards
- Total budget: \$75 million







## Leverage ratepayer funds with private capital

#### Commitment of ~\$200 million over 2 years

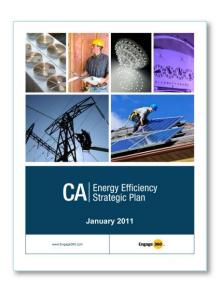
- Expansion of existing On-Bill Financing (OBF) programs
- Continuation of ARRA Programs
- Fast-track financing pilots for launch in 2013 and scale up in 2014
  - Single-family
  - Multi-family
  - Small business
  - On-Bill Repayment (OBR) for non-utility originated loan

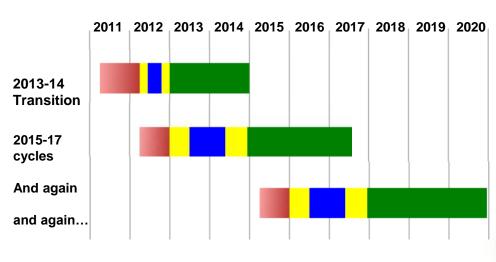




### What next?

- 1. What would the pathway look like to scale-up energy efficiency by 2x, 5x, 10x? (e.g. business models, technology, equipment, installation solutions, workforce, consumers, ...)
- 2. Which few new initiatives or strategies could have the largest impact on mobilizing the "opportunity gap"?
- 3. Which of these can the private sector solve on its own? Why is this not happening? What could make a difference?
- 4. Which of these can state &/or local governments mobilize? What specifically needs to be done? Is this sufficient, or are actions needed from others?









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